

(19) Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) EP 0 967 580 A3

(12) EUROPEAN PATENT APPLICATION

(88) Date of publication A3:  
15.11.2000 Bulletin 2000/46

(51) Int Cl. 7: G07C 5/00, B67D 5/14,  
B67D 5/33, G07F 13/02

(43) Date of publication A2:  
29.12.1999 Bulletin 1999/52

(21) Application number: 99304901.4

(22) Date of filing: 22.06.1999

(84) Designated Contracting States:  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE

Designated Extension States:  
AL LT LV MK RO SI

(30) Priority: 23.06.1998 US 102805

(71) Applicant: Marconi Commerce Systems Inc.  
Greensboro, North Carolina 27420 (US)

(72) Inventors:  
• Freeze, Deron W.  
Cabarrus, North Carolina 28071 (US)  
• Greene, John Clay  
Greensboro, North Carolina 27409 (US)

(74) Representative: Fitchett, Stuart Paul  
Marconi Intellectual Property  
Waterhouse Lane  
Chelmsford, Essex CM1 2QX (GB)

(54) Centralized transponder arbitration

(57) The present invention relates to determining the proximity of a tag to a fuel dispensing position of a forecourt (20) and provides a system to store a sequence of data records relating to attributes of interactions between fuel dispensers (20) and tags (100). The data records may be stored on the tag or at a location remote from the tag, such as a fuel dispenser, central site controller (28) or other network (300). The data records may contain the identity of the dispenser, tag and any attribute or a received signal, such as frequency

band or signal strength, or other attribute indicative of proximity. Every dispenser (200) that attempts to communicate with a tag (100) adds its own interaction data to a limited history of a tag's past interactions with the same and other dispensers. When a dispenser (200) or central site control system (28) examines the contents of the interaction histories, the detected presence of other dispensers or the relative strength of the recorded interaction attributes will determine what, if any, action is to be taken by the dispensers or central site control system to communicate with the tag.

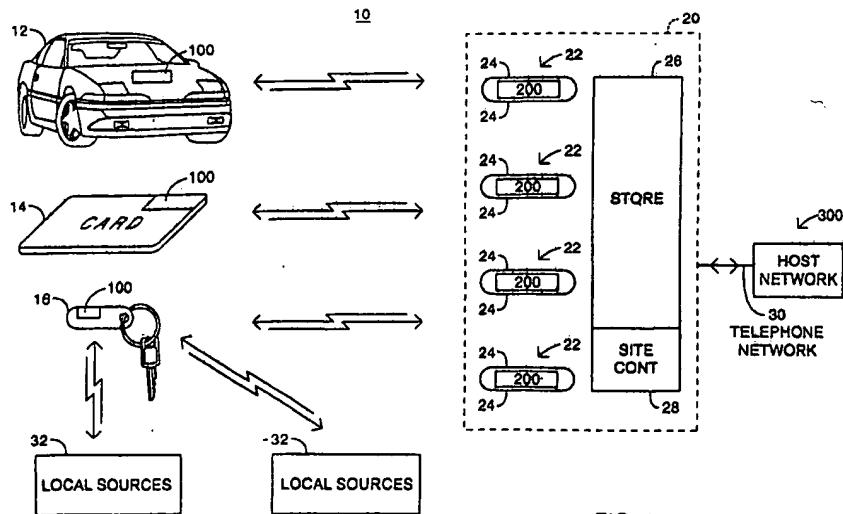


FIG. 1

EP 0 967 580 A3



European Patent  
Office

## EUROPEAN SEARCH REPORT

Application Number

EP 99 30 4901

DOCUMENTS CONSIDERED TO BE RELEVANT		
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim
X	<p>WO 97 21626 A (GILBARCO LTD) 19 June 1997 (1997-06-19)</p> <p>* abstract; claims; figures *</p> <p>* page 2, line 18 - page 6, line 28 *</p> <p>* page 8, line 20 - page 12, line 18 *</p> <p>-----</p> <p>EP 0 461 888 A (EXXON RESEARCH ENGINEERING CO) 18 December 1991 (1991-12-18)</p> <p>* abstract; claims; figures *</p> <p>-----</p> <p>WO 94 19781 A (KIP HARM JACOB ;NEDAP NV (NL)) 1 September 1994 (1994-09-01)</p> <p>-----</p>	<p>1-4, 6, 7, 9, 12, 16, 17, 19, 21, 22</p>
		<p><b>CLASSIFICATION OF THE APPLICATION (Int.Cl.6)</b></p> <p>G07C5/00 B67D5/14 B67D5/33 G07F13/02</p>
		<p><b>TECHNICAL FIELDS SEARCHED (Int.Cl.6)</b></p> <p>B67D G07C G07F G06K</p>
<p>The present search report has been drawn up for all claims</p>		
Place of search	Date of completion of the search	Examiner
THE HAGUE	25 September 2000	Meyl, D
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p>		<p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>

ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 99 30 4901

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

25-09-2000

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9721626	A	19-06-1997		AU 1102897 A		03-07-1997
				EP 0868393 A		07-10-1998
				US 5956259 A		21-09-1999
EP 0461888	A	18-12-1991		US 5072380 A		10-12-1991
				AT 119302 T		15-03-1995
				DE 69107695 D		06-04-1995
				DE 69107695 T		29-06-1995
				FI 912810 A		13-12-1991
				IE 67130 B		06-03-1996
				JP 4233067 A		21-08-1992
				NO 912126 A		13-12-1991
				PT 97929 A		31-08-1993
WO 9419781	A	01-09-1994		NL 9300290 A		16-09-1994